Inspiring Innovation • Persistent Perfection

SABERTOOTH X79

Best cooling of all Intel® X79 boards with Thermal Armor and Thermal Radar

- 2nd Generation Intel® Core™ i7 processor family for the LGA 2011 Socket
- Intel® X79 Express Chipset
- Support for up to 64GB of system memory with an 8-DIMM design
- TUF Thermal Armor - Total Airflow-Boosting Heat Dissipation
- TUF Thermal Radar - Real Time Temp Detection and Heat Removal
- TUF Components [Choke, Cap. & MOSFET; Certified by Military-standard] - Certified for Tough Duty
- New DIGI+ Power Control - All-New Digital Power Control for both CPU and DRAM
- ASUS SSD Caching - 3X faster performance at a click

TUF /tʌf/, stands for The Ultimate Force.

The TUF series delivers a “tough” image. With the unique design & high quality components (military-standard), TUF series is born for pursuing the preeminent stability, all-round compatibility, and extreme durability

THE ULTIMATE FORCE

"Ultimate COOL!" Thermal Solution

Thermal Armor

Total Airflow-Boosting Heat Dissipation

New generation TUF Thermal Armor kicks cooling up a notch with dual integrated Turbo Engine fans. This enhances the original TUF thermal design, helping direct heat away from MOS area components and out the case via the rear I/O section. Special heat pipes propel dissipation from critical components and make sure temps stay low across the board. The Thermal Armor also provides modders and LAN party goers an extra-cool dress up option to show off their creativity and dedication to performance.

Thermal Radar

Real Time Temp Detection and Heat Removal

The TUF Thermal Radar monitors temps in critical parts of the motherboard in real time, automatically adjusting fan speeds to make sure the system maintains high stability without overheating. It consists of multiple sensors for various components on the motherboard, giving users the ability to monitor each one individually. The Thermal Radar automatically calculates ideal fan speeds based on different parameters selected by users for each component, keeping everything cooler and longer lasting.

"TUF ENGINE!" Power Design

New DIGI+ Power Control

All-New Digital Power Control for both CPU and DRAM

ASUS X79 motherboards include New DIGI+ Power Control with three digital voltage controllers, including all-new DRAM controllers that offers ultra-precise memory tuning in addition to ultra-precise CPU voltage control. This evolution of innovative, industry-leading ASUS technology provides the best in class control for better efficiency, stability and performance.

Best in class power efficiency and stability

Two critical components work perfectly together to match digital power signal (SVID) requests from the CPU, with ultra-fast sensing and response to efficiently deliver the right level of power on demand. Accurate power reduces wasteful voltage imprecision, and provides more a stable CPU and memory setup.

8 DIMM Design. X79 Done Right
Support for up to 64GB of system memory with an 8-DIMM design on ASUS X79 motherboards provides the capacity for users to make full use of modern 64-bit software, ideal for rendering detailed images or manipulating large files without the bottlenecks of conventional storage. It also allows users to set up big RAM disks and speed up frequently accessed programs, minimizing the impact of storage transfer delays while maximizing user benefit.

UEFI BIOS

Flexible & Easy BIOS Interface
ASUS UEFI BIOS offers the first mouse-controlled graphical BIOS designed with selectable modes, providing a user-friendly interface that goes beyond traditional keyboard-only controls. It also natively supports fully-utilized hard drives larger than 2.2TB in 64-bit operating systems.

ASUS exclusive interface
EZ Mode displays frequently-accessed info. Users can choose system performance settings and drag and drop boot priorities. Advanced Mode for performance enthusiasts includes detailed DRAM settings via a dedicated memory info page for complete insight.

New upgrade! Quick and easy info for enhanced system control
- F12 BIOS snapshot hotkey for sharing UEFI setup info and troubleshooting
- New F3 Shortcut for most accessed info
- ASUS DRAM SPD (Serial Presence Detect) Information for accessing memory info, detecting faulty DIMMs and helping with difficult POST situations

TUF Components (Choke, Cap. & MOSFET; Certified by Military-standard)

Certified for Tough Duty
Get rugged performance even in the most challenging conditions with robust TUF chokes, solid capacitors, and MOSFETs--certified through third-party, military-grade testing. TUF Chokes, also known as the “Ferrite Choke”, is a made of a compound of various types of metal instead standard iron, enables the support of up to a massive 50A of rated current, much higher than conventional component. Furthermore, the single piece packaing also elimates the emission of virbation noise, delivering superb charactoristics as well as durability under extreme conditions.

ASUS Exclusive Features

ASUS SSD Caching

3X faster performance at a click
SSD caching from ASUS is easier than ever. At 3X faster, this feature boosts system performance by using an installed SSD with no capacity limitations as a cache for frequently accessed data. Harness a combination of SSD-like performance and response and hard drive capacity with just one click, no rebooting needed and instant activation for complete ease of use.

USB BIOS Flashback

Easy, worry-free USB BIOS Flashback
USB BIOS Flashback offers the most convenient way to flash the BIOS ever! It allows overclockers to try new BIOS versions easily, without even entering their existing BIOS or operating system. Just plug in USB storage and push the dedicated button for 3 seconds, and the BIOS is automatically flashed using standby power. Worry-free overclocking for the ultimate convenience!

USB 3.0 Boost

Faster USB 3.0 Transmission with UASP
New ASUS USB 3.0 Boost technology supports UASP (USB Attached SCSI Protocol), the latest USB 3.0 standard. With USB 3.0 Boost, USB device transmission speed is significantly increased by up to 170%, adding to already impressively fast USB 3.0 transfer speeds. USB 3.0 Boost provides a user-friendly graphical interface, which instantly accelerates transfer speeds for USB 3.0 peripherals with exclusive ASUS device auto-detect settings.

"Safe & Stable!" Guardian Angel

MemOK!

Any Memory is A-OK!
MemOK! quickly ensures memory boot compatibility. This remarkable memory rescue tool requires a mere push of a button to patch memory issues. MemOK! determines failsafe settings and dramatically improves your system boot success. Get your system up and running in no time!

ESD Guards

Unique protection of motherboard components from unexpected electrostatic discharges (ESD)
Electrostatic discharge (ESD) can happen suddenly and its damaging effects is often underestimated. Exclusive ASUS anti-static chip, a protective circuit design, and the I/O shield provides four times better protection to extend component lifespan.

Latest Transfer Technology

Power eSATA 6Gb/s ready

2X faster with fully charged power
Powered eSATA 6Gb/s combines data and power connectivity. Users enjoy 2X faster transfer rates, and can use external SATA 6Gb/s devices with no additional power adapters. ASUS provides extra port with enhanced scalability, faster data retrieval, and double the bandwidth of current bus systems for extra speed and accessibility

Front Panel USB 3.0 Support

Convenient USB 3.0 Front Panel Compatibility
ASUS provides standardized USB 3.0 front panel support, compatible with any chassis. Enjoy faster throughput of USB 3.0 without relegating cables or devices to the hard-to-reach rear I/O.

Complete USB 3.0 Solution

Double USB access, double convenience
ASUS facilitates strategic USB 3.0 accessibility for both the front and rear panel - 6 USB 3.0 ports in total. Experience the latest plug & play connectivity at speeds up to 10 times faster than USB 2.0. The SABERTOOTH X79 affords greater convenience to high speed connectivity.

CPU, Chipset and Graphics features

2nd Generation Intel® Core™ i7 Processor family for the LGA 2011 Socket

This motherboard supports the latest 2nd Generation Intel® Core™ i7 Processor family for the LGA 2011 Socket, with memory and PCI Express controllers integrated to quad-channel (8 DIMMs) DDR3 memory and 40 PCI Express 3.0 lanes. This provides great graphics performance. 2nd Generation Intel® Core™ i7 Processor family for the LGA 2011 Socket is one of the most powerful and energy efficient CPUs in the world.

Intel® X79 Express Chipset

The Intel® X79 Express Chipset is the latest single-chipset design that supports the 2nd Generation Intel® Core™ i7 Processor family for the LGA 2011 Socket. It improves performance by utilizing serial point-to-point links, allowing for increased bandwidth and stability. Additionally, the X79 comes with 2 SATA 6Gb/s and 4 SATA 3Gb/s ports for faster data retrieval, doubling the bandwidth of current bus systems.

PCIe 3.0 Ready

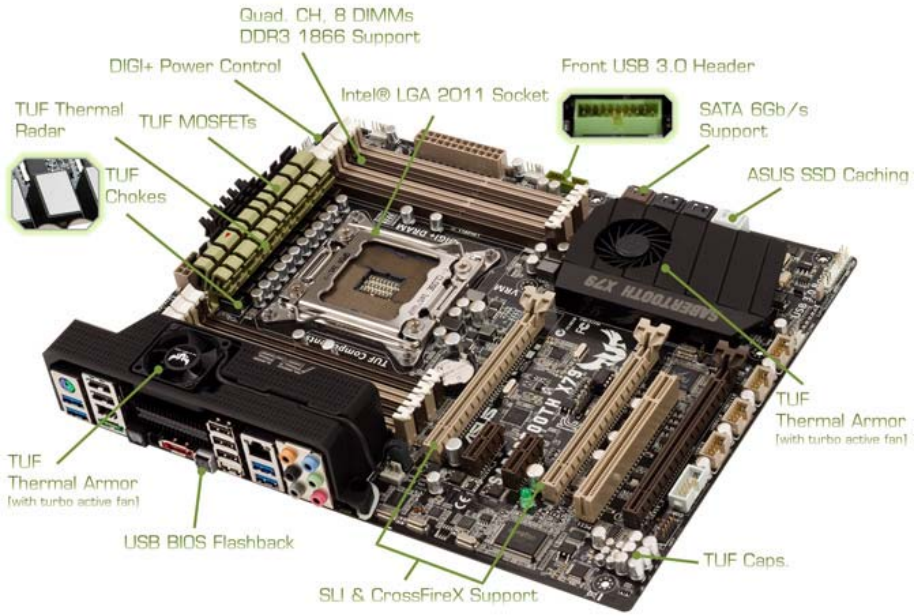
The latest PCI Express bus standard delivers improved encoding for twice the performance of current PCIe 2.0. Total bandwidth for a x16 link reaches a maximum of 32GB/s, double the 16GB/s of PCIe 2.0 (in x16 mode). PCIe 3.0 provides users unprecedented data speeds, combined with the convenience and seamless transition offered by complete backward compatibility with PCIe 1.0 and PCIe 2.0 devices. It's a must-have feature for PC users aiming to improve and optimize graphics performance, as well as have the latest, most future-proof technology.

*This motherboard is ready to support PCIe 3.0 SPEC. Functions will be available when using PCIe 3.0-compliant devices. Please refer to www.asus.com for updated details.

Quad-GPU SLI and Quad-GPU CrossFireX Support!

Flexible Multi-GPU Solutions, Your Weapon of Choice!
SABERTOOTH X79 brings you the multi-GPU choice of either SLI™ or CrossFireX. The motherboard features the most powerful Intel® X79 platform to optimize PCIe allocation in multiple GPU configurations. Expect a brand-new gaming style you've never experienced before!

SABERTOOTH X79 Product Overview



Guaranteed Service

5 Year Warranty

The ultimate reliability of TUF Series is not only based on advanced thermal design, military-standard components and strict reliability tests, but also on the 5 Years Warranty* which is proudly provided.

* This service will follow the local standard and service policy.
** This service only covers failures or malfunctions that occur during the warranty period and under normal use conditions, as well as any material or workmanship defects.

Specifications

CPU	Intel® Socket 2011 for 2nd Generation Core™ i7 Processors Supports Intel® Turbo Boost Technology 2 * Refer to www.asus.com for CPU support list
Chipset	Intel® X79
Memory	8 x DIMM, Max. 64GB, DDR3 1866/1600/1333/1066 MHz Non-ECC, Un-buffered Memory Quad Channel Memory Architecture Supports Intel® Extreme Memory Profile (XMP) * Hyper DIMM support is subject to the physical characteristics of individual CPUs. * Refer to www.asus.com or user manual for the Memory QVL (Qualified Vendors Lists).
Multi-GPU Support	Supports NVIDIA® Quad-GPU SLI™ Technology Supports AMD Quad-GPU CrossFireX™ Technology
Expansion Slots	2 x PCIe 3.0/2.0 x16 (dual x16) *1 1 x PCIe 3.0/2.0 x16 (x8 mode) *1 2 x PCIe 2.0 x1 1 x PCI
Storage	**Intel® X79 chipset :** 2 x SATA 6Gb/s port(s), brown 4 x SATA 3Gb/s port(s), black Support Raid 0, 1, 5, 10 **Marvell® PCIe 9128 controller :** 2 x SATA 6Gb/s port(s), gray **ASMedia® ASM1061 controller :** 1 x Power eSATA 6Gb/s port(s), green 1 x eSATA 6Gb/s port(s), red
LAN	Intel® 82579V, 1 x Gigabit LAN Controller(s)
Audio	Realtek® ALC892 8-Channel High Definition Audio CODEC - Supports : Jack-detection, Multi-streaming, Front Panel Jack-retasking **Audio Feature :** - Absolute Pitch 192kHz/ 24-bit True BD Lossless Sound

	- Blu-ray audio layer Content Protection - Optical S/PDIF out port(s) at back panel
IEEE 1394	VIA® 6315N controller 1 x IEEE 1394a port(s) (1 at back panel)
USB Ports	**ASMedia® USB 3.0 controller :** 6 x USB 3.0 port(s) (4 at back panel, blue, 2 at mid-board) **Intel® X79 chipset :** 14 x USB 2.0 port(s) (6 at back panel, black, 8 at mid-board)
Special Features	**TUF ENGINE! Power Design :** - 8 +2 +2 +2 Digital Phase Power Design - TUF Components (Choke, Cap. & MOSFET; certified by military-standard) - ASUS DIGI+ Power Control Utility **Ultimate COOL! Thermal Solution :** - TUF Thermal Armor - TUF Thermal Radar **ASUS Exclusive Features** : - MemOK! - AI Suite II - Anti-Surge - ESD Guards - ASUS UEFI BIOS EZ Mode featuring friendly graphics user interface - ASUS SSD Caching - USB 3.0 Boost **ASUS EZ DIY :** - USB BIOS Flashback - ASUS Q-Shield - ASUS O.C. Profile - ASUS CrashFree BIOS 3 - ASUS EZ Flash 2 - ASUS MyLogo 2 - Multi-language BIOS **ASUS Q-Design :** - ASUS Q-LED (CPU, DRAM, VGA, Boot Device LED) - ASUS Q-Slot - ASUS Q-DIMM - ASUS Q-Connector
Back I/O Ports	1 x PS/2 keyboard/mouse combo port(s) 1 x eSATA 6Gb/s 1 x Power eSATA 6Gb/s 1 x IEEE 1394a 1 x LAN (RJ45) port(s) 4 x USB 3.0 6 x USB 2.0 1 x Optical S/PDIF out 6 x Audio jack(s) 1 x USB BIOS Flashback Button(s)
Internal I/O Ports	1 x USB 3.0 connector(s) support(s) additional 2 USB 3.0 port(s) (19-pin, moss green) 4 x USB 2.0 connector(s) support(s) additional 8 USB 2.0 port(s) 1 x COM port(s) connector(s) 4 x SATA 6Gb/s connector(s) 4 x SATA 3Gb/s connector(s) 1 x CPU Fan connector(s) (4 -pin) 4 x Chassis Fan connector(s) (4 -pin) 1 x Optional Fan connector(s) (4 -pin) 1 x Assistant Fan connector(s) (4 -pin) 1 x S/PDIF out header(s) 1 x 24-pin EATX Power connector(s) 1 x 8-pin ATX 12V Power connector(s) 1 x Front panel audio connector(s) (AAFP) 1 x System panel(s) (Q-Connector) 1 x MemOK! button(s) 1 x Clear CMOS jumper(s)
Accessories	User's manual ASUS Q-Shield 2 x SATA 3Gb/s cable(s) 4 x SATA 6Gb/s cable(s) 1 x SLI bridge(s) 1 x Q-connector(s) (2 in 1) 1 x I/O Cover Fan(s) 1 x TUF Certification card(s) 1 x TUF 5 Year Warranty manual(s) (by region)
BIOS	64 Mb Flash ROM, UEFI BIOS, PnP, DMI2.0, WfM2.0, SM BIOS 2.6, ACPI 2.0a, Multi-language BIOS, ASUS EZ Flash 2, ASUS CrashFree BIOS 3
Manageability	WfM 2.0, DMI 2.0, WOL by PME, WOR by PME, PXE

Support Disc	Drivers Anti-virus software (OEM version) ASUS Update ASUS Utilities
Form Factor	ATX Form Factor 12 inch x 9.6 inch (30.5 cm x 24.4 cm)
Note	*1: This motherboard is ready to support PCIe 3.0 SPEC. Functions will be available when using PCIe 3.0-compliant devices. Please refer to www.asus.com for updated details.